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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,425	08/02/2001	Tatsuya Kawasumi	FUJI 18.894	6715
26304	7590	03/30/2005	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN			ROBERTS, BRIAN S	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	

2662

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,425

Applicant(s)

KAWASUMI ET AL.

Examiner

Brian Roberts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/02/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/14/04 & 8/02/01.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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Claims 1-10 have been examined.

Specification

1. The disclosure is objected to because of the following informalities:

In regard to page 22 lines 16, "NO" should read "YES".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Freitas.

- In reference to claim 1-6 and 9-10,

Nakamura et al. discloses an overhead processing unit for detecting SS bit information that is found in the H bytes (Figure 1-2, column 11 lines 3-15) (claims 1a, 2, 3, 4, 9, 10 – detecting H bytes from an administrative group (AUG) forming a synchronous transport module (STM) of a received signal).

Nakamura et al. discloses an automatic judgment processing unit for determining whether the received signal is a SDH or a SONET signal based upon the difference in the frame synchronization pattern, the definition of SS bits,

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and the definition of undefined bytes. (column 26 lines 42-65, column 18 lines 60-65, column 19 lines 1-19) Nakamura et al. further discloses judging the received signal using a fixed value within the H bytes. (column 28 lines 10-65) (claim 1b, 2, 3, 4, 6, 9, 10 – judging whether the received signal is an AU-3 SONET or an AU-4 SDH mapping signal based on predetermined fixed values of the H1, H2, and H3 bytes which form the H bytes)

Nakamura et al. discloses carrying out a unique pointer process depending on whether the signal is judged as a SONET or a SDH signal. (column 19 lines 16-38) Nakamui discloses that the SS bits are rewritten into “10” and the undefined bytes are rewritten into “1” when the SDH/SONET mode setting signal is set to select the SDH mode (Figures 9-11, column 38 lines 41-67) (claim 1c, 2, 3, 4, 5, 9, 10 – carrying out an AU-3 pointer process which uses the H1, H2, and H3 bytes and the pointer values when the received signal is judged as a AU-3 mapping signal).

Nakamura et al. discloses that the SS bits are rewritten into “00” and the undefined bytes are rewritten into “0” when the SDH/SONET mode setting signal is set to select the SONET mode (Figures 9-1, column 38 lines 41- 67) (claim 1d, 3, 4, 5, 9, 10 - carrying out an AU-4 pointer process which uses the pointer value of the H1 bytes when the received signal is judged as a AU-4 mapping signal).

Nakamura et al. discloses a format conversion process that includes insertion of a frame pattern, SS bit information, and undefined byte information for the SONET transmission data in accordance with the SDH/SONET mode switching signal supplied when the result of the SDH/SONET mode automatic

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judgment performed in the automatic judgment processing is a SONET signal. (Figure 4, column 19 lines 61-67, column 20 lines 1-6) (claim 1e, 2, 3, 4, 9, 10 – inserting a pointer value in each of the H1, H2, and H3 bytes, with respect to a transmitted signal, when the received signal is judged as the AU-3 mapping signal)

Nakamura discloses a format conversion process that includes insertion of a frame pattern, SS bit information, and undefined byte information for the SDH transmission data in accordance with the SDH/SONET mode switching signal supplied when the result of the SDH/SONET mode automatic judgment performed in the automatic judgment processing is a SDH signal. (Figure 4, column 19 lines 61-67, column 20 lines 1-6) (claim 1f, 3, 4, 9, 10 - inserting a pointer value in the H1 bytes, with respect to a transmitted signal, when the received signal is judged as the AU-4 mapping signal).

Nakamura et al. does not disclose using the H3 bytes to determine whether a received signal is an AU-3 or AH-4 mapping signal, carrying out an AU-3 pointer process that uses the pointer values of the H3 bytes or inserting a pointer value in the H3 bytes when the received signal is judged as an AU-3 mapping signal.

Freitas discloses a method of processing SONET and SDH frames using the H1, H2, and H3 bytes and values thereof, and a method of generating a new pointer values for the H1, H2, and H3 bytes for the SONET or SDH frame.

(abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Nakamura et al. by using the H3 byte as taught by Freitas to judge whether the received signal is an AU-3 or AU-4 and carrying out a pointer process that involves inserting a pointer value in the H3 byte. The method taught by Freitas allows for the insertion of new pointers in a SONET or SDH depending on the judged mapping signal as in the method taught by Nakamura. This method would allow the processing of an AU-3 or AU-4 mapping signal without generating a LOP error in a system that contains an interconnection of a SDH apparatus and a SONET apparatus.

- In reference to claim 7 and 8,

Nakamura et al. teaches a reception data processing unit that extracts SS bit information and inherently stores the extracted data found in the H bytes in a buffer (Figure 5-8, Figure 17, column 28 lines 22-25) (claim 7 – pointer value selection and extracting means for selecting and extracting the pointer values of each of the H1, H2, and H3 bytes). Nakamura et al. further teaches a method for outputting the signal converted from SDH to SONET or SONET to SDH after the overhead insertion process. (Figure 1, column 3 lines 1-25)

Nakamura et al. does not explicitly teach a means for buffering the extracted pointer values from the received signal using three independent circuit sections.

Freitas teaches a SONET/SDH pointer processor that consists of a pointer interpreter (PI), a first in first out memory (FIFO), and a pointer generator (PG).

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The PI circuit receives an incoming frame, interprets the pointer bytes, and counts down to the first byte of the payload. This byte is tagged and sent through the FIFO. When the PG block receives the byte, the new pointer is calculated. The PI inherently contains a buffer for storing the extracted H byte values (Figure 1, Figure 1a, column 1 lines 63-67, column 2 lines 1-13, 43-52) (claim 8 – three circuit sections for independently buffering and outputting the data)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method of Nakamura et al. to include a pointer value buffer as taught by Freitas with the design choice of three independent circuit sections for buffering the data. This method would allow for each of the pointer values of the H bytes to be individually stored for processing once they are extracted from the AU-3 or AU-4 signal.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Uematsu et al. (US 5751720) discloses a pointer processor and pointer processor scheme for a SDH/SONET transmission system.
- Williamson et al. (US 5572515) discloses a system for automatic signal recognition and selection for a SONET and SDH signal.
- Fukunaga et al. (US 6118795) discloses a reception pointer process and apparatus in a SDH and SONET system.

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- Heuer et al. (US 6717953) discloses a method and apparatus for converting a SONET signal to a SDH signal.
- Engbersen et al. (US 6058119) discloses a method and apparatus for the mapping of data from a SONET/SDH signal.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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